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## (54) GROWING OF THIN FILM ELECTROLUMINESCENCE STRUCTURE

(57)Abstract:

PROBLEM TO BE SOLVED: To grow an SrS phosphor layer doped, with cerium by an atomic layer epitaxy method, exhibiting improved uniformity of luminance by employing, as a precursor of a cerium dopant an organic metal cerium compound containing a cyclopentadienyl type ligand.

SOLUTION: There is employed an organic metal cerium compound containing at least one cyclopentadienyl type ligand, preferably a compound represented by the formula:  $CeCp_nR^{3-n}$ . In the formula, R is hydrocarbyl; (n) is 1-3; Cp is the formula:  $C_5R_1xR_2yH_5-z$ ; (x) and (y) are each 1-5;  $x+y$  is (z) and  $z \leq 5$ ; and  $R_1-2$  are each a lower alkyl. Preferably, a Ce precursor is one comprising a compound selected from tricyclopentadienyl derivatives and alkyl-substituted tricyclopentadienyl derivatives of cerium, and further preferably one selected from tetramethyl- and isopropyl-substituted Ce-tricyclopentadienyl compounds.

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## LEGAL STATUS

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